

**STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

STAFF REPORT FOR REGULAR MEETING OF SEPTEMBER 6, 2012

Prepared on June 14, 2012

ITEM NUMBER: XX

**SUBJECT: STATUS OF THE LOS OSOS WATER RECYCLING FACILITY
CONSTRUCTION PROJECT, SAN LUIS OBISPO COUNTY**

SUMMARY

The purpose of this staff report is to provide the Central Coast Water Board and the public a status update on the current Los Osos Water Recycling Facility (LOWRF) construction activities. In addition, staff provides an update to the recent activities related to seawater intrusion. San Luis Obispo County Public Works staff has been invited to participate in the September 6 Water Board meeting.

DISCUSSION

Background

The Los Osos/Baywood Park area of San Luis Obispo County is located on the southern edge of Morro Bay National Estuary, approximately ten miles west of the City of San Luis Obispo. The community has a population of approximately 15,000 people, and contains about 5,000 individual lots. Throughout the community, on-site septic systems are used for treatment and disposal of wastewater.

The Central Coast Water Board adopted Resolution No. 83-13 in 1983, which amended the Water Quality Control Plan for the Central Coastal Basin (Basin Plan) and prohibited, effective November 1, 1988, discharges of waste from individual and community sewage systems within portions of the Los Osos/Baywood Park area. Constructing a community wastewater collection and treatment system is the most practical manner to comply with this prohibition.

Resolution No. 83-13 included a compliance schedule requiring the County to design and construct a community wastewater treatment facility. However, the project's progress was halted and subsequently the Los Osos community formed a community services district to take control of the wastewater project. The Los Osos CSD submitted its wastewater project for Central Coast Water Board staff review and approval. The Central Coast Water Board adopted waste discharge requirements for the project on February 7, 2003. The Los Osos CSD began construction in August 2005. In September 2005, a recall election replaced three CSD board members with new board members. The CSD stopped construction and never built the project.

On September 20, 2006, the Governor signed Assembly Bill 2701 (AB 2701, Blakeslee) which allowed the County to undertake efforts necessary to design and construct a community wastewater treatment facility for the Los Osos/Baywood Park prohibition area. The County began the process of evaluating alternatives for the Los Osos Wastewater Plant community wastewater treatment system. The County certified a final EIR and adopted a coastal development permit on September 29, 2009. After appeal of the County permit, the Coastal Commission issued a final coastal development permit (CDP) on June 11, 2010.

Waste Discharge Requirements: On May 5, 2011, the Central Coast Water Board adopted Waste Discharge Requirements Order No. R3-2011-0001 (WDR) for discharges related to the LOWRF. The LOWRF is designed to discharge tertiary treated wastewater to the Broderon and Bayridge Estates leach fields as well as supply recycled water to urban and agricultural areas. A copy of the WDR and associated Monitoring and Reporting Program (MRP) can be found at the following internet links:

WDR:

http://www.waterboards.ca.gov/centralcoast/board_decisions/adopted_orders/2011/2011_0001_wdr_order.pdf

MRP:

http://www.waterboards.ca.gov/centralcoast/board_decisions/adopted_orders/2011/2011_0001_mrp_order.pdf

On April 27, 2012, Water Board staff required the County to begin baseline groundwater quality sampling within the 2012 calendar year (refer to Attachment 1).

Water Board Subcommittee

At its meeting on May 3, 2012, the Water Board appointed a subcommittee on Los Osos wastewater and groundwater management issues. The Water Board directed the subcommittee to gather information on the status of the project in the following three areas, which would be included in a Los Osos project update:

1. Recycled water, including the status of water reuse areas.
2. The role of a) recycled water from the wastewater treatment plant and b) conservation, in correcting seawater intrusion.
3. Construction dewatering issues.

The final version of this staff report will include a report of the subcommittee's activities.

Water Recycling Facility Construction Update

The LOWRF will consist of three main components: wastewater collection; wastewater treatment, which includes biosolids processing and disposal; and effluent disposal and reuse.

Collection System Construction: In April 2012, the County Board of Supervisors approved plans and specifications for collection system areas A & D and authorized advertising for bids on the construction contract. The bid window closed on May 10, 2012, and County staff anticipates breaking ground in July 2012. The following table presents major project milestones for the installation of the collection system.

Anticipated Milestone	Timeframe
Construction Bid Submittals	May – June 2012
Award Construction Contracts	June – July 2012

Begin Construction	July – August 2012
Construction Completion	December 2014

Dewatering – As part of collection system construction, the County anticipates the need to dewater excavations during pipe and lift station installation activities. Water Board staff approved the County's enrollment in the General Construction Storm Water NPDES Permit on May 21, 2012. As required by the coastal development permit (CDP), the County developed a dewatering plan for water quality protection. Prior to the development of the dewatering plan, Water Board staff issued a letter to the County outlining the factors it needed to consider (refer to Attachment 2). A copy of the county dewatering plan can be found at the following internet link.

<http://www.slocounty.ca.gov/Assets/PW/Design+Division/300448.08.01.BC+-+Appendix+D.pdf>

This report has a preliminary recommendation to use a four-stage approach. The first stage is to use water for construction use (dust control, etc.) since no groundwater retention sites will be available when work starts. Stage two would continue to utilize construction use and would add the new Mid-Town retention site and the existing retention basin sites for groundwater disposal while the Broderson leachfield system and the recycled water pipeline from the treatment plant to the Broderson effluent disposal site are being constructed. During stage three, when the Broderson leachfield site and the recycled water pipeline have been constructed, both the Mid-Town retention site and the Broderson leachfield site will be operational and construction of the gravity collection system and pump stations and force mains can then proceed with the necessary dewatering. The intent would be to pump discharged groundwater to the Mid-Town and public retention basins for land disposal and Broderson for back-up. Discharge to the Mid-Town and existing public retention sites augmented with the Broderson leachfield site appears to be a viable and cost-effective means to dispose of the anticipated flows. Flow estimates range from approximately 620 to 1,300 gpm for one dewatering area, and 2,500 to 4,900 gpm for four concurrent areas throughout construction. Groundwater production in excess of 6,500 gpm would require a fourth stage involving agricultural reuse along Clark Valley Road. This would be necessary only if the groundwater production exceeds what could be disposed of with the combined capacity of the construction use plus Mid-Town and existing retention sites plus Broderson leachfield site. Treatment and disposal to the storm drains are a possible optional disposal method.

Water Recycling Facility Construction: The LOWRF will include bar screens, secondary treatment (parallel oxidation ditches), secondary clarification, tertiary filtration, and ultraviolet disinfection. The LOWRF will also include a septage receiving holding tank, which will only receive septage from existing septic systems in the service area. The LOWRF will be located two miles east of the community core and behind the Los Osos Valley Cemetery (formerly known as the Giacomazzi Property). The County is currently undergoing negotiations with the property owner to finalize the acquisition. The following table presents major project milestone for the construction of the LOWRF.

Anticipated Milestone	Time frame
Construction Bid Advertisement	Early 2013
End of Construction Bid Submittals	Early 2013
Award Construction Contract	Mid 2013
Begin Construction	Late 2013
Complete Construction	Mid 2015

Recycled Water Management Plan

The County released its draft Recycled Water Management Plan on November 11, 2011, as required by Condition #5 of the CDP. The primary objective for the recycled water reuse is to mitigate seawater intrusion by offsetting pumping from the lower groundwater basin. The draft Recycled Water Management Plan includes sections on the purpose and intent of the management plan; associated recycled water regulations and policies; recycled water parameters and compliance conditions; availability of the recycled water for reuse; projected groundwater basin benefits; infrastructure needs; as well as the selection process for initial agricultural reuse. Pursuant to the CDP, the County includes a discussion of its water conservation program, which details the County's analysis of water demand and the process for screening and selecting feasible conservation measures. The draft Recycled Water Management Plan also includes a discussion of a monitoring program that incorporates coordination with other Los Osos community monitoring programs, data collection frequency, and monitoring procedures for both groundwater monitoring and environmental monitoring. Finally, the draft Recycled Water Management Plan includes a reporting and adaptive management plan to better evaluate, readjust, and execute the management of recycled water reuse.

The Recycled Water Management Plan identifies four schools, the Los Osos community park, six areas of irrigated agriculture, the Sea Pines Golf Course, and the Los Osos Valley Cemetery for seasonal recycled water irrigation. The County currently has tentative agreements for urban recycled water reuse at the cemetery, the schools, and the community park. In addition, the County formalized program participation agreements with six agricultural parcels.

Water Board staff anticipates that the County will use elements of the final Recycled Water Management Plan to develop the engineering report required by the California Department of Public Health prior to permitting wastewater reuse. The Water Board will also use the engineering report to issue reclamation requirements.

Septic System Decommissioning

On February 7, 2012, the County approved a consulting agreement with SLO Green Build for the development of a Septic System Decommissioning and Reuse Plan, which is a required element of the CDP (Condition #2). According to the CDP, the County is to develop a decommissioning plan that identifies measures to be taken to appropriately decommission the existing septic systems within the community. In addition, the plan will evaluate possible on-site reuse alternatives, including filtration and percolation of storm water to the degree feasible and appropriate. SLO Green Build along with County staff have been working with Water Board staff to evaluate conversion opportunities for existing septic systems. County staff anticipates that the septic system decommissioning plan will be released in mid-2014.

Los Osos Groundwater Basin Management

Domestic water for the Los Osos community is produced by three main water purveyors: Golden State Water Company (GSWC), Los Osos Community Services District (LOCSD), and S and T Mutual Water Company (S&T). A smaller quantity of drinking and irrigation water comes from individual private wells, mostly in outlying rural areas. Under supervision of San Luis Obispo County Superior Court, the three main water purveyors and the county entered into an Interlocutory Stipulated Judgment (ISJ) on August 5, 2008. The ISJ allows for the parties to cooperatively assess, develop, and implement a plan to address water rights and use in the Los Osos Basin. The County's participation in the ISJ working group allows coordinated efforts between the construction of the wastewater project and water management in Los Osos.

The ISJ requires the parties to collaboratively develop a groundwater basin management plan (Los Osos Basin Plan). Although the Los Osos Basin Plan has not been publicly released, major elements of the plan are complete. The ISJ Working Group has not yet identified a public release date. As a result, Water Board staff sent a letter to the San Luis Obispo County Superior Court requesting that it expedite the Los Osos Basin Plan release (refer to Attachment 3).

Seawater Intrusion

The ISJ working group notified the public of its efforts through the May 5, 2010 Los Osos Groundwater Basin Plan Update. According to the May 2010 update, the seawater wedge has extended into the lower aquifer through “fingers” at a rate of 700 feet per year. These conclusions were based on data from 2005 through 2010. The May 2010 Los Osos Groundwater Basin Plan Update is available at the following website:

[http://www.losososcsd.org/Library/Document%20Library/groundwaterbasinupdate5-4-2010\[1\].pdf](http://www.losososcsd.org/Library/Document%20Library/groundwaterbasinupdate5-4-2010[1].pdf)

On October 6, 2011, Rob Miller (LOCSD contract engineer and ISJ Working Group representative) provided a status update on the ISJ Working Group’s current activities (funding, draft basin plan development), actions to address seawater intrusion, and an overview of the April 2011 Water Demand Analysis and Water Conservation Evaluation (Maddaus Report) at a LOCSD meeting. The October 6, 2011 LOCSD meeting agenda, staff report, and minutes can be found at the following website.

<http://www.losososcsd.org/cm/board/AgendaandMinutes/2011%20Agendas%20and%20Minutes.html>

Water Board staff released a memorandum to the public regarding an update on the Los Osos Groundwater Basin ISJ Working Group’s Activities. The memorandum discussed the ISJ Working Group’s goals that guide the group’s decision making process, and current and future water purveyor activities that will help manage the basin and address seawater intrusion. A copy of staff’s December 2011 memorandum can be found at the following website.

http://www.waterboards.ca.gov/centralcoast/water_issues/hot_topics/2011_12_09_%20isj_memo.pdf.pdf

Water Conservation

On April 5, 2011, the ISJ Working Group publicly released the 2011 Maddaus Report. The Maddaus Report analyzed various water conservation options for future funding and implementation. The report focused on five main conservation goals: 1) forecast future water demand under various water conservation scenarios, 2) estimate conservation costs and related water savings, 3) analyze individual conservation measures, 4) group conservation measures into defined programs, and 5) assess effectiveness of programs to meet the indoor use goal of 50 gallons per person per day. The report analyzed 31 conservation measures and specifically evaluated the water savings, associated costs, and cost-to-benefit ratios. Furthermore, the report identified five water conservation programs, which contained different combinations of the 31 different water conservation measures based on associated costs, water savings, and overall benefit. The report concluded that three programs did not meet the goal of 50 gallons per capita per day. However, the report recommended that a combination of elements from the other two programs might be implemented as both programs provide a favorable cost-to-benefit comparison and will meet the water saving goal of 50 gallons per capita per day. The selected water conservation program will have to align with the County’s water conservation program

pursuant to the coastal development permit, which will ultimately be approved by the California Coastal Commission.

COMMENTS

Staff released this staff report in draft form for public comment on June 14, 2012. Staff will respond to written comments received by 5:00 p.m. on July 16, 2012. Staff will likely issue an addendum to this staff report after the Central Coast Water Board subcommittee has gathered information.

ATTACHMENTS:

1. California Water Code Section 13267 Letter Requiring Technical/Monitoring report on Baseline Groundwater Quality; April 27, 2012.
2. Use and Disposal Plan for Construction Dewatering Letter; May, 27, 2011.
3. Central Coast Water Board Letter Requesting an Established Deadline for the Los Osos Basin Plan Release; May 31, 2012.

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